

REMARKS

Applicant gratefully acknowledges the telephone conference with Examiner Rodney McDonald on April 3, 2006. In the telephone conference, Applicant provided the background of the problem, and how the present application solves the problem. In addition, the Segar patent (U.S. Patent No. 6,368,425), the Church patent (U.S. Publication No. 2004/0180608) and the Kawawake patent (U.S. Publication No. 2002/0036876) were discussed. At the conclusion of the interview, the Examiner indicated that all pending claims were in condition for allowance without amendment. In particular, the Examiner acknowledged that the Segar patent had been overcome, and that neither Church nor Kawawake taught or suggested all elements of independent claims 1, 9, and 12. Therefore, with this response no amendments have been made to the claims. Pending claims 1-19 are in condition for allowance.

Claim Rejections - 35 U.S.C. § 103

In the Office Action claims 1-19 were rejected under 35 U.S.C. § 103 as being obvious over the Segar patent (U.S. Patent No. 6,368,425) in view of the Church patent (U.S. Publication No. 2004/0180608) and the Kawawake patent (U.S. Publication No. 2002/0036876).

Independent claims 1, 9, and 12 are directed to a method of forming a tunneling magnetoresistive (TMR) head. TMR heads are used to read data from a magnetic medium. The TMR head operates to detect data stored on the magnetic medium by sensing the magnetic fields emanating from the magnetic medium.

In the Office Action, the primary reference relied upon in the rejection of independent claims 1, 9, and 12 was the Segar patent. The Segar patent, such as in FIG. 4, discloses ion beam techniques for improving the tribology at the air bearing surface of a magnetic recording head. The purpose of a magnetic recording head is to record data on a magnetic medium. The magnetic recording head includes top pole 20, bottom pole 22, insulating materials (gap) 30, and coils 26 and 28. When an electric current is applied to coils 26 and 28 magnetic flux flows through poles 20 and 22 to create a magnetic field across gap 30 at air bearing surface 14.

The Segar patent makes no mention of a tunneling magnetoresistive head or a tunneling magnetoresistive stack, but rather focuses on a magnetic recording head used to record data on a medium. Therefore, it is improper to reject independent claims 1, 9, and 12 based upon the Segar patent. Furthermore, the Segar patent does not teach or suggest forming a tunneling magnetoresistive stack as recited in independent claims 1, 9, and 12.

Furthermore, neither the Church patent nor the Kawawake patent teach or suggest each and every element of independent claims 1, 9, and 12. Therefore, independent claims 1, 9, and 12 are in condition for allowance. Reconsideration and notice to that effect is respectfully requested. Dependent claims 2-8, 11, and 13-19 depend from allowable independent claims 1, 9, and 12 respectively, and are therefore also allowable.

Conclusion

Based upon the foregoing, the pending application containing claims 1-19 is in condition for allowance. Reconsideration and notice to that effect is respectfully requested.

Respectfully submitted,

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